mHealth Past, Present, and Future: Practical Lessons

Justin Yarrow, PhD

Southern African HIV Clinician's Society - 2014 mHealth: "the practice of medicine and public health supported by mobile devices."

Sort of....

mHealth = mHealth Applications

- Many diverse applications
- Use similar infrastructure
- Some common activities
- Effectiveness is case specific
- A mature field is one where the merits of the individual application are scrutinized and the field as a whole is taken for granted









mHealth Past

- Lots of ideas
- Lots of hope
- Less data
- Less evaluation
- Pilots!
- SMSes
- Broadcast



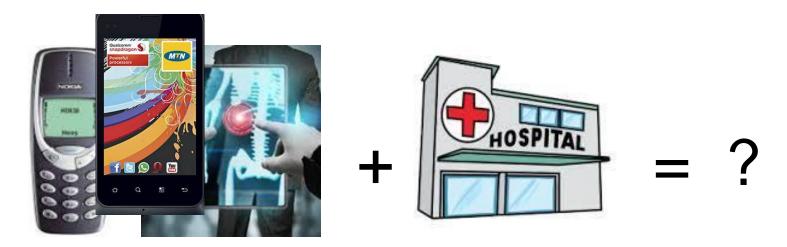
mHealth Current

- Monitoring and Evaluation (M&E) and costing
- Newer technology
- Users use data
- Government strategies and programme
- Interest in monetizing
- Recent version of past

mHealth Promise Hope and Reality

- "The evidence base for using mHealth to improve Maternal, Newborn and Child Health interventions in terms of health impact and cost-effectiveness is still nascent." mHealth and MNCH:State of the Evidence William C. Philbrick mHealth Alliance, UN Foundation January 2013
- "There is <u>insufficient evidence</u> to support the effectiveness of mHealth for Non-Communicable Disesase care in sub-Saharan Africa." Global Health. 2014 Jun 13;10:49. doi: 10.1186/1744-8603-10-49.
- "A pilot study of an mHealth application for healthcare workers: <u>poor uptake</u> despite high reported acceptability at a rural South African community-based MDR-TB treatment program." PLos ONE;May2013, Vol. 8 Issue 5, p1

mHealth Reality



- Health care worker and health system demands
- Unrealistic pilots
- Unfair comparison
- Innovations fail and fail



mHealth Future

- Faster, cheaper devices
- More users, savvy users
- Integration and linkage to action
- Apps, peer to peer, personalisation, Internet of things
- Public Benefit vs. Monetized
- Inclusivity
- Data privacy

Future mHealth Applications

- Clinic Wifi
- Non networked patient support apps
- Supply chain management
- "Fix my Clinic" feedback linked to action
- Supportive supervision
- Device monitoring cold chain, etc.
- Revisit failed applications



Metrics for defining what we should pursue

- Impact
 - Health
 - Population
- Does it work?
- Does it work at scale?
- Ease of introduction
- Obsolescence
- Cost at scale
- Integration with other systems
- Patient privacy and data security



How to speed mHealth Development for better Health

- Ask the right questions
- Department of Health education, strategy, and engagement
- Learn from others
- Coordinate efforts
- Consolidate wins
- Real world laboratories
- Proper evaluation
- Incentivizing development and experimentation
- Start! experiment, fail, iterate, improve
- Profitability: Business interests vs. Public benefit and Public Health

Conclusion

- The mHealth application is what matters
- Early days of mHealth applications
- Ask right questions develop rigorous meaningful responses
- Think scale
- Link to action
- Start now!